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ABSTRACT

Standardized curricula are provided for two courses for the secondary vocational education program in Mississippi: carpentry I and II. The seven units in carpentry I are as follows: introduction and orientation; safety; measurement; tools and equipment; basic concepts in carpentry; reading blueprints and working drawings; and foundations. Carpentry II consists of six units: safety; floor framing; wall framing; roof framing; exterior finishing; and interior finishing. Each unit consists of these components: objectives, with core/essential objectives indicated; suggested instructional practices; list of suggested resources; list of evaluation and suggested minimum performance standards, with core/essential objectives indicated; and performance record, with core/essential objectives indicated. A checklist for each course combining all unit performance standards into a single list is included. (YLB)

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STANDARDIZED CURRICULUM

FOR

CARPENTRY

MISSISSIPPI DEPARTMENT OF EDUCATION

OFFICE OF VOCATIONAL, TECHNICAL

AND ADULT EDUCATION

June 1989

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FOREWORD

This volume is intended to be used in the State of Mississippi as a mechanism for standardizing vocational education course titles and core contents. The need for standardization of curricula was triggered by provisions in the Educational Reform Act of 1982 which mandated:

- -- elimination of nearly all currently existing curriculum requirements and development of new curriculum content that is "properly sequenced" and "coordinated";
- -- steps to ensure that students master one level of course work before being advanced to the next level and that progression is properly sequenced;
- -- a criterion-referenced, state-wide testing program that is built upon an identified set of "basic skills" keyed to student performance in grades 3, 5, 8, and 11;
- -- revised graduation requirements that take into account student performance on the basic skills and also on a test of "functional literacy skills"; and
- -- a system of accrediting schools that takes into account the performance of districts, schools, and students.

In addition to the mandates of the Educational Reform Act, the Strategic Plan for Vocational and Technical Education in Mississippi also calls for improving the quality of vocational and technical education through the standardization of curricula and the articulation of secondary and postsecondary programs.

Both of these mandates were further reinforced by legislation passed in 1986 which called for the establishment of state-wide "guidelines and procedures for managing an instructional program in the public schools." This legislation calls for instructional management plans containing the following components:

1. a written list of learning objectives for every course for which academic credit is given on students' transcripts (state specified core objectives must be included);
2. suggested instructional practices and resources for the learning objectives;
3. standards for student performance for each learning objective; and
4. systematic procedures for evaluating student performance on the learning objectives.

Specific local district actions regarding the state-wide instructional management plan are also required, namely:

1. The objectives contained in this document are common to all programs in the state. Core objectives are designated with an asterisk. The local district is encouraged to add additional objectives to this listing to meet local needs of students and employers.

2. The local school board must officially adopt the learning objectives as the district's curricula.

3. Pass/fail policies must be based on mastery of learning objectives.

4. Student performance on the learning objectives must be systematically evaluated at least once during the school year.

5. During the school year, records of individual student performance must indicate whether or not the objectives have been mastered. The record must indicate mastery status for each of the objectives tested in the Basic Skills Assessment Program (including functional literacy skills) and must be permanently maintained on all students who do <u>not</u> master the basic and functional literacy skills prior to being tested on them.

6. Each year, information about student performance on learning objectives must be reviewed. Those objectives which students are not mastering must be identified, and a plan must be developed for improving student performance on those objectives.

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CARPENTRY I

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CARPENTRY I

Unit No.	Title
1	Introduction and Orientation
2	Safety
3	Measurement
4	Tools and Equipment
5	Basic Concepts in Carpentry
6	Reading Blueprints and Working Drawings
7	Foundations

COURSE: Carpentry I

Unit 1: Introduction and Orientation (10 days)

Objectives: Upon completion of this unit, the student will:

1. Name the youth organization related to carpentry.
*2. Identify terms and definitions associated with carpentry.
*3. Label the basic parts of a house.
*4. Identify framing styles.
*5. List in order the logical sequence of the various phases of construction for a one story structure.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will name the youth organization related to carpentry.
*Objective 2: The student will list six terms associated with carpentry.
*Objective 3: The student will label ten basic parts of a house.
*Objective 4: The student will identify two framing styles.
*Objective 5: The student will list in order the three phases of construction for a one story structure.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ 1. Named the youth organization related to carpentry.
_____ *2. Identified terms and definitions associated with carpentry.
_____ *3. Labeled the basic parts of a house.
_____ *4. Identified framing styles.
_____ *5. Listed in order the logical sequence of the various phases of contruction for a one story structure.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 2: Safety (10 days)

Objectives: Upon completion of this unit, the student will:

*1. List general rules related to work safety in the shop.
*2. List general rules related to hand tool safety.
*3. List general rules related to fire safety.
*4. List general rules for power tool safety.
*5. Demonstrate the proper technique in lifting heavy objects.
*6. Identify types of Ground Fault Circuit Interrupter (GFCI).
*7. List the purpose of a Ground Fault Circuit Interrupter (GFCI).
*8. Define double insulated power tool.
9. Identify breakers.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Jacobs, Clinton O., and Turner, J. Howard. Shop Safety Skills. Athens, Georgia: AAVIM. 1979.

Calvin, S. Thomas. Electrical Wiring. Athens, Georgia: AAVIM. 1981.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will list four general rules related to work safety in the shop.
*Objective 2: The student will list six general rules related to hand tool safety.
*Objective 3: The student will list five general rules related to fire safety.

*Objective 4: The student will list ten general rules for power tool safety.
*Objective 5: The student will demonstrate the proper technique in lifting heavy objects.
*Objective 6: The student will identify three types of Ground Fault Circuit Interrupter (GFCI).
*Objective 7: The student will list two purposes of a Ground Fault Circuit Interrupter (GFCI).
*Objective 8: The student will define double insulated power tool.
*Objective 9: The student will identify two types of breakers.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Listed general rules related to work safety in the shop.
_____*2. Listed general rules related to hand tool safety.
_____*3. Listed general rules related to fire safety.
_____*4. Listed general rules for power tool safety.
_____*5. Demonstrated the proper technique in lifting heavy objects.
_____*6. Identified types of Ground Fault Circuit Interrupter (GFCI).
_____*7. Listed purpose of a Ground Fault Circuit Interrupter (GFCI).
_____*8. Defined double insulated power tool.
_____ 9. Identified breakers.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 3: Measurement (10 days)

Objectives: Upon completion of this unit, the student will:

*1. List measuring tools.
2. Identify types of rules.
3. Identify types of squares.
*4. Read whole numbers on a rule.
*5. Read eighths on a rule.
*6. Read sixteenths on a rule.
*7. Measure objects using a rule.
8. Measure sample forms of angles.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Moses, Napoleon. Basic Industrial Mathematics. Mississippi State, MS: Research and Curriculum Unit. 1982.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will list two measuring tools.
Objective 2: The student will identify three types of rules.
Objective 3: The student will identify three types of squares.
*Objective 4: The student will read whole numbers on a rule.
*Objective 5: The student will read eighths on a rule.
*Objective 6: The student will measure two objects.

*Objective 7: The student will measure two objects to the nearest sixteenth using a rule.
Objective 8: The student will measure simple forms of angles.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Listed measuring tools.
_____ 2. Identified types of rules.
_____ 3. Identified types of squares.
_____*4. Read whole numbers on a rule.
_____*5. Read eighths on a rule.
_____*6. Read sixteenths on a rule.
_____*7. Measured objects using a rule.
_____ 8. Measured simple forms of angles.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 4: Tools and Equipment (40 days)

Objectives: Upon completion of this unit, the student will:

1. Identify terms and definitions associated with hand tools and equipment.
*2. Identify safety procedures used with hand tools (electric or air).
*3. Identify types of hand tools.
*4. Identify methods in caring for hand tools (electric or air).
*5. Identify correct hand tools for a job.
*6. Identify safety procedures used with portable power tools (electric or air).
*7. Identify types of portable power tools.
*8. Identify the correct methods of using and caring for portable power tools.
*9. Identify the correct portable power tool for a job.
*10. Identify safety procedures used with stationary power tools.
*11. Identify types of stationary power tools.
*12. Identify the correct methods of using and caring for stationary power tools.
*13. Identify the correct stationary power tool for a job.
*14. Measure, square, and cut a given piece of stock.
*15. Set up and perform a given operation on a power tool (electric or air).
16. Identify agencies that regulate shop safety.
17. Identify factors which will determine the correct tool for a job (electric or air).
18. List factors that determine proper tool condition.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Jacobs, Clinton O., and Turner, J. Howard. Shop Safety Skills. Athens, Georgia: AAVIM. 1979.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will identify ten terms and definitions associated with hand tools and equipment.
*Objective 2: The student will identify four safety procedures used with hand tools.
*Objective 3: The student will identify fifteen types of hand tools.
*Objective 4: The student will identify two methods in caring for hand tools.
*Objective 5: The student will identify three correct hand tools for a job.
*Objective 6: The student will identify five safety procedures used with portable power tools.
*Objective 7: The student will identify five types of portable power tools.
*Objective 8: The student will identify five correct methods of using and caring for portable power tools.
*Objective 9: The student will identify five correct portable power tools for a job.
*Objective 10: The student will identify six safety procedures used with stationary power tools.
*Objective 11: The student will identify five types of stationary power tools.
*Objective 12: The student will identify five correct methods of using and caring for stationary power tools.
*Objective 13: The student will identify five correct stationary power tools for a job.
*Objective 14: The student will measure, square, and cut a given piece of stock.
*Objective 15: The student will set up and perform a given operation on a power tool.
Objective 16: The student will identify seven agencies that regulate shop safety.
Objective 17: The student will identify two factors which will determine the correct tool for a job.
Objective 18: The student will list four factors that determine proper tool condition.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

____ 1. Identified terms and definitions associated with hand tools and equipment.
____ *2. Identified safety procedures used with hand tools.
____ *3. Identified types of hand tools.
____ *4. Identified methods in caring for hand tools.
____ *5. Identified correct hand tools for a job.

____ *6. Identified safety procedures used with portable power tools.
____ *7. Identified types of portable power tools.
____ *8. Identified the correct methods of using and caring for portable power tools.
____ *9. Identified the correct portable power tool for a job.
____ *10. Identified safety procedures used with stationary power tools.
____ *11. Identified types of stationary power tools.
____ *12. Identified the correct methods of using and caring for stationary power tools.
____ *13. Identified the correct stationary power tool for a job.
____ *14. Measured, squared, and cut a given piece of stock.
____ *15. Set up and performed a given operation on a power tool.
____ 16. Identified agencies that regulate shop safety.
____ 17. Identified factors which will determine the correct tool for a job.
____ 18. Listed factors that determine proper tool condition.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 5: Basic Concepts in Carpentry (25 days)

Objectives: Upon completion of this unit, the student will:

1. Identify terms and definitions related to concepts in carpentry.
*2. Identify materials for a certain job.
*3. Identify sizes of standard lumber.
*4. Figure board feet on given stock.
5. Identify types of storage for materials.
6. Identify different kinds of hardware used in carpentry.
*7. Install butt hinge on given stock.
*8. Install a door lock on given stock.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will identify eight terms and definitions related to concepts in carpentry.
*Objective 2: The student will identify three materials for a certain job.
*Objective 3: The student will identify five sizes of standard lumber.
*Objective 4: The student will figure board feet on given stock.
Objective 5: The student will identify two types of storage for materials.
Objective 6: The student will identify five different kinds of hardware used in carpentry.

*Objective 7: The student will install a butt hinge on given stock.
*Objective 8: The student will install a door lock on given stock.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ 1. Identified terms and definitions related to concepts in carpentry.
_____*2. Identified materials for a certain job.
_____*3. Identified sizes of standard lumber.
_____*4. Figured board feet on given stock.
_____ 5. Identified types of storage for materials.
_____ 6. Identified different kinds of hardware used in carpentry.
_____*7. Installed butt hinge on given stock.
_____*8. Installed a door lock on given stock.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 6: Reading Blueprints and Working Drawings (15 days)

Objectives: Upon completion of this unit, the student will:

*1. Identify terms and definitions used in reading blueprints and working drawings.
*2. List the purposes of a building plan or blueprint.
*3. Identify the basic views of a drawing.
*4. Identify the lines used on blueprints.
*5. Draw the basic views of a given object.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will identify four terms and definitions used in reading blueprints and working drawings.
*Objective 2: The student will list the purpose of a building plan or blueprint.
*Objective 3: The student will identify three basic views of a drawing.
*Objective 4: The student will identify four lines used on blueprints.
*Objective 5: The student will draw the three basic views of a given object.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Identified terms and definitions used in reading blueprints and working drawings.
_____*2. Listed the purpose of a building plan or blueprint.
_____*3. Identified the basic views of a drawing.
_____*4. Identified the lines used on blueprints.
_____*5. Drew the basic views of a given object.

*Indicates core/essential objectives

COURSE: Carpentry I

Unit 7: Foundations (20 days)

Objectives: Upon completion of this unit, the student will:

*1. Identify terms and definitions used in concrete foundations.
*2. Identify terms and definitions used in wood foundations.
*3. Identify terms used in footing and foundation forms.
*4. Figure the amount of concete needed for a given area.
*5. Set up batter boards to grade.
*6. List reasons for using steel reinforcement in concrete slabs.
*7. Identify sizes of steel reinforcing bars used in concrete slabs.
*8. List common sizes of wire mesh commonly used in concrete slabs.
*9. List ingredients concrete is made of.
*10. Estimate concrete for a given area.
*11. List steps to cure concrete properly.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will identify five terms and definitions used in concrete foundations.
*Objective 2: The student will identify four terms and definitions used in wood foundations.
*Objective 3: The student will identify six terms used in footing and foundation forms.
*Objective 4: The student will figure the amount of concrete needed for a given area.
*Objective 5: The student will set up batter boards to grade.

*Objective 6: The student will list two reasons for using steel reinforcement in concrete slabs.
*Objective 7: The student will identify two sizes of steel reinforcing bars used in concrete slabs.
*Objective 8: The student will list two common sizes of wire mesh commonly used in concrete slabs.
*Objective 9: The student will list two ingredients concrete is made of.
*Objective 10: The student will estimate concrete for a given area.
*Objective 11: The student will list two steps to cure concrete properly.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

____ *1. Identified terms and definitions used in concrete foundations.
____ *2. Identified terms and definitions used in wood foundations.
____ *3. Identified terms used in footing and foundation forms.
____ *4. Figured the amount of concrete needed for a given area.
____ *5. Set up batter boards to grade.
____ *6. Listed reasons for using steel reinforcement in concrete slabs.
____ *7. Identified sizes of steel reinforcing bars used in concrete slabs.
____ *8. Listed common sizes of wire mesh commonly used in concrete slabs.
____ *9. Listed ingredients concrete is made of.
____ *10. Estimated concrete for a given area.
____ *11. Listed steps to cure concrete properly.

*Indicates core/essential objectives

CARPENTRY II

Developed by

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CARPENTRY II

Unit No.	Title
1	Safety
2	Floor Framing
3	Wall Framing
4	Roof Framing
5	Exterior Finishing
6	Interior Finishing

COURSE: Carpentry II

Unit 1: Safety (Review and Reinforcement) (5 days)

Objectives: Upon completion of this unit the student will:

*1. List general rules related to work safety in the shop.
*2. List general rules related to hand tool safety.
*3. List general rules related to fire safety.
*4. List general rules for power tool safety.
*5. List general rules for clothing and personal protective equipment safety.
*6. Demonstrate the proper technique in lifting heavy objects.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will list four general rules related to work safety in the shop.
*Objective 2: The student will list six general rules related to hand tool safety.
*Objective 3: The student will list five general rules related to fire safety.
*Objective 4: The student will list ten general rules for power tool safety.
*Objective 5: The student will list four general rules for clothing and personal protective equipment safety.

*Objective 6: The student will demonstrate the proper technique in lifting heavy objects.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

____*1. Listed general rules related to work safety in the shop.
____*2. Listed general rules related to hand tool safety.
____*3. Listed general rules related to fire safety.
____*4. Listed general rules for power tool safety.
____*5. Listed general rules for clothing and personal protective equipment safety.
____*6. Demonstrated the proper technique in lifting heavy objects.

*Indicates core/essential objectives

COURSE: Carpentry II

Unit 2: Floor Framing (8 days)

Objectives: Upon completion of this unit, the student will:

*1. Match to their correct definitions terms associated with floor and sill framing.
*2. Identify floor and sill framing and support members.
*3. List methods used to fasten sills to the foundation.
*4. Define a girder.
*5. Define a joist.
6. Identify types of bridging.
*7. Perform a layout for joists on 16" or 24" centers.
8. Install bridging, to scale.
9. Build a box sill to scale.
10. Install floor joists to scale.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match to their definitions six terms associated with floor and sill framing.
*Objective 2: The student will identify six floor and sill framing and support members.
*Objective 3: The student will list two methods used to fasten sills to the foundation.
*Objective 4: The student will define a girder.
*Objective 5: The student will define a joist.
Objective 6: The student will identify two types of bridging.
*Objective 7: The student will perform a layout for joists on 16" or 24" centers.

Objective 8: The student will install bridging to scale.
Objective 9: The student will build a box sill to scale.
Objective 10: The student will install floor joists to scale.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched to their correct definitions terms associated with floor and sill framing.
_____*2. Identified floor and sill framing and support members.
_____*3. Listed methods used to fasten sills to the foundation.
_____*4. Defined a girder.
_____*5. Defined a joist.
_____ 6. Identified types of bridging.
_____*7. Performed a layout for joists on 16" or 24" centers.
_____ 8. Installed bridging, to scale.
_____ 9. Built a box sill to scale.
_____10. Installed floor joists to scale.

*Indicates core/essential objectives

COURSE: Carpentry II

Unit 3: Wall Framing (15 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with wall and ceiling framing to their correct definitions.
*2. Identify framing members used in wall and partition framing.
*3. Compute rough opening (R.O.) dimensions for windows and doors.
*4. List methods used to brace walls.
*5. Select proper size nails most often used in framing.
*6. Lay out wall and partition locations on floor.
*7. Build corners, Ts, and headers, to scale.
*8. Lay out ceiling joists to scale.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match six terms associated with wall and ceiling framing to their correct definitions.
*Objective 2: The student will identify five framing members used in wall and partition framing.
*Objective 3: The student will compute one set of rough opening (R.O.) dimensions for windows and doors.
*Objective 4: The student will list two methods used to brace walls.
*Objective 5: The student will select two proper size nails most often used in framing.
*Objective 6: The student will lay out to scale wall and partition locations on floor.

*Objective 7: The student will build to scale corners, Ts, and headers.
*Objective 8: The student will lay out ceiling joists to scale.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with wall and ceiling framing to their correct definitions.
_____*2. Identified framing members used in wall and partition framing.
_____*3. Computed rough opening (R.O.) dimensions for windows and doors.
_____*4. Listed methods used to brace walls.
_____*5. Selected proper size nails most often used in framing.
_____*6. Laid out wall and partition locations on floor.
_____*7. Built corners, Ts, and headers, to scale.
_____*8. Laid out ceiling joists to scale.

*Indicates core/essential objectives

COURSE: Carpentry II

Unit 4: Roof Framing (30 days)

Objectives: Upon completion of this unit the student will:

*1. Match to their correct definitions terms associated with roof framing.
*2. Identify roof styles.
*3. Identify roof framing members.
*4. Label roof framing units.
*5. Use a framing square to compute the length of a common rafter.
*6. Cut a common rafter.
*7. Identify types of trusses.
*8. Lay out rafter locations on top plate and ridgeboard on two foot centers.
*9. Apply roof sheathing.
10. Frame a gable end with vent opening to scale.
11. List types of roofing materials.
*12. Apply shingles with 5" exposure.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match to their correct definitions seven terms associated with roof framing.
*Objective 2: The student will identify six roof styles.
*Objective 3: The student will identify five roof framing members.
*Objective 4: The student will label three roof framing units.
*Objective 5: The student will use a framing square to compute the length of a common rafter to specifications.

*Objective 6: The student will cut a common rafter to specifications.
*Objective 7: The student will identify four types of trusses.
*Objective 8: The student will lay out rafter locations on top plate and ridgeboard on two foot centers to specifications.
*Objective 9: The student will apply roof sheathing to specifications.
Objective 10: The student will frame a gable end with vent opening to scale.
Objective 11: The student will list fourteen types of roofing materials.
*Objective 12: The student will apply shingles with 5" exposure.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

____ *1. Matched to their correct definitions terms associated with roof framing.
____ *2. Identified roof styles.
____ *3. Identified roof framing members.
____ *4. Labeled roof framing units.
____ *5. Used a framing square to compute the length of a common rafter.
____ *6. Cut a common rafter.
____ *7. Identified types of trusses.
____ *8. Laid out rafter locations on top plate and ridgeboard on two foot centers.
____ *9. Applied roof sheathing.
____ 10. Framed a gable end with vent opening to scale.
____ 11. Listed types of roofing materials.
____ *12. Applied shingles with 5" exposure.

*Indicates core/essential objectives

COURSE: Carpentry II

Unit 5: Exterior Finishing (20 days)

Objectives: Upon completion of this unit, the student will:

*1. Match to their correct definitions terms associated with cornices and gable ends.
*2. Label types of cornice designs.
*3. Identify parts of a boxed cornice.
*4. Build a horizontal box cornice.
5. Match terms associated with roofing to their correct definitions.
*6. List safety rules pertaining to roofing.
7. Match to their correct definitions terms associated with exterior wall finishes and trim.
*8. Name types of wall sheathing.
*9. Estimate amounts of siding for given jobs.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match to their correct definitions eight terms associated with cornices and gable ends.
*Objective 2: The student will label three cornice designs.
*Objective 3: The student will identify four parts of a boxed cornice.
*Objective 4: The student will build a horizontal box cornice to specifications.
Objective 5: The student will match seven terms associated with roofing to their correct definitions.

*Objective 6: The student will list fifteen safety rules pertaining to roofing.

Objective 7: The student will match to their correct definitions seven terms associated with exterior wall finishes and trim.

*Objective 8: The student will name four types of wall sheathing.

*Objective 9: The student will estimate amounts of siding for given jobs to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched to their correct definitions terms associated with cornices and gable ends.
_____*2. Labeled types of cornice designs.
_____*3. Identified parts of a boxed cornice.
_____*4. Built a horizontal box cornice.
_____ 5. Matched terms associated with roofing to their correct definitions.
_____*6. Listed safety rules pertaining to roofing.
_____ 7. Matched to their correct definitions terms associated with exterior wall finishes and trim.
_____*8. Named types of wall sheathing.
_____*9. Estimated amounts of siding for given jobs.

*Indicates core/essential objectives

COURSE: Carpentry II

Unit 6: Interior Finishing (50 days)

Objectives: Upon completion of this unit the student will:

*1. List types of insulation commonly used in residential construction.
2. List types of gypsum wallboard.
3. Identify hardware and fasteners used with gypsum wallboard.
*4. Estimate materials needed to dry wall a structure (of a given area).
*5. Match to their correct definitions terms associated with wall and ceiling finishes.
*6. List materials used to finish walls and ceilings.
*7. Estimate the number of 4' x 8' sheets needed to panel a room.
*8. Match terms associated with interior doors and trim to their correct definitions.
9. List the general types of interior door construction.
*10. Identify hand of a door.
11. Identify types of interior trim.
*12. Estimate materials need to trim a room.
13. Install interior door frame, hang door, install lock, and install trim, to scale.
*14. Match terms associated with cabinet installation and special built-ins to their correct definitions.
15. List types of cabinets.
*16. List the standard sizes of base and top cabinets.
17. Label types of cabinet-door installation.
18. Label styles of cabinet doors.
19. Label types of joints used in cabinet construction.
*20. Identify hardware used on cabinets.
*21. List types of material used on counter tops.
*22. Install a custom-built cabinet.
*23. Construct a lip door.
*24. Construct a cabinet drawer.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture-discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Resources: Hohhertz, Durwin. General Construction Trades: Introduction. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hohhertz, Durwin. General Construction Trades: Carpentry. Commerce, TX: Occupational Curriculum Laboratory. 1986.

Hendrix, Laborn J. "Bud." Residential Carpentry. Washington: Associated General Contractors of America. 1985.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will list seven types of insulation commonly used in residential construction.
Objective 2: The student will list two types of gypsum wallboard.
Objective 3: The student will identify seven kinds of hardware and fasteners used with gypsum wallboard.
*Objective 4: The student will estimate materials needed to dry wall a structure of a given area.
*Objective 5: The student will match to their correct definitions seven terms associated with wall and ceiling finishes.
*Objective 6: The student will list seven materials used to finish walls and ceilings.
*Objective 7: The student will estimate the number of 4' x 8' sheets needed to panel a room, to specifications.
*Objective 8: The student will match ten terms associated with interior doors and trim to their correct definitions.
Objective 9: The student will list the two general types of interior door construction.
*Objective 10: The student will identify three hands or swings of a door.
Objective 11: The student will identify eight types of interior trim.
*Objective 12: The student will estimate material needed to trim a room to specifications.
Objective 13: The student will install interior door frame, hang door, install lock, and install trim, to scale and specifications.
*Objective 14: The student will match nine terms associated with cabinet installation and special built-ins to their correct definitions and specifications.
Objective 15: The student will list two types of cabinets.
*Objective 16: The student will list the height and depth standard sizes of base and top of cabinets.
Objective 17: The student will label two types of cabinet door installation.
Objective 18: The student will label two styles of cabinet doors.
Objective 19: The student will label five types of joints used in cabinet construction.
*Objective 20: The student will identify nine kinds of hardware used on cabinets.
*Objective 21: The student will list four types of materials used on counter tops.

*Objective 22: The student will install a custom-built cabinet to scale and specifications.
*Objective 23: The student will construct a lip door to scale and specifications.
*Objective 24: The student will construct a cabinet drawer to scale and specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

____ *1. Listed types of insulation commonly used in residential construction.
____ 2. Listed types of gypsum wallboard.
____ 3. Identified hardware and fasteners used with gypsum wallboard.
____ *4. Estimated materials needed to dry wall a structure (of a given area).
____ *5. Matched to their correct definitions terms associated with wall and ceiling finishes.
____ *6. Listed materials used to finish walls and ceilings.
____ *7. Estimated the number of 4' x 8' sheets needed to panel a room.
____ *8. Matched terms associated with interior doors and trim to their correct definitions.
____ 9. Listed the general types of interior door construction.
____ *10. Identified hand of a door.
____ 11. Identified types of interior trim.
____ *12. Estimated material needed to trim a room.
____ 13. Installed interior door frame, hung door, installed lock, and installed trim, to scale.
____ *14. Matched terms associated with cabinet installation and special built-ins to their correct definitions.
____ 15. Listed types of cabinets.
____ *16. Listed the standard sizes of base and top cabinets.
____ 17. Labeled types of cabinet-door installation.
____ 18. Labeled styles of cabinet doors.
____ 19. Labeled types of joints used in cabinet construction.
____ *20. Identified hardware used on cabinets.
____ *21. Listed types of material used on counter tops.
____ *22. Installed a custom-built cabinet.
____ *23. Constructed a lip door.
____ *24. Constructed a cabinet drawer.

*Indicates core/essential objectives

STUDENT PERFORMANCE RECORD

CARPENTRY

CARPENTRY I

Student: _____

This record is provided as an alternative to the student performance records at the end of each unit. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

Place a check by each objective the student achieved; you may wish to note the date that the student achieved the objective.

C = Core competencies

____ 1. Named the youth organization related to carpentry.
____ C2. Identified terms and definitions associated with carpentry.
____ C3. Labeled the basic parts of a house.
____ C4. Identified framing styles.
____ C5. Listed in order the logical sequence of the various phases of contruction for a one story structure.
____ C6. Listed general rules related to work safety in the shop.
____ C7. Listed general rules related to hand tool safety.
____ C8. Listed general rules related to fire safety.
____ C9. Listed general rules for power tool safety.
____ C10. Demonstrated the proper technique in lifting heavy objects.
____ C11. Identified types of Ground Fault Circuit Interrupter (GFCI).
____ C12. Listed purpose of a Ground Fault Circuit Interrupter (GFCI).
____ C13. Defined double insulated power tool.
____ C14. Identified breakers.
____ C15. Listed measuring tools.
____ 16. Identified types of rules.
____ 17. Identified types of squares.
____ C18. Read whole numbers on a rule.
____ C19. Read eighths on a rule.
____ C20. Read sixteenths on a rule.
____ C21. Measured objects using a rule.
____ 22. Measured simple forms of angles.
____ 23. Identified terms and definitions associated with hand tools and equipment.
____ C24. Identified safety procedures used with hand tools.
____ C25. Identified types of hand tools.
____ C26. Identified methods in caring for hand tools.
____ C27. Identified correct hand tools for a job.
____ C28. Identified safety procedures used with portable power tools.
____ C29. Identified types of portable power tools.
____ C30. Identified the correct methods of using and caring for portable power tools.

____ C31. Identified the correct portable power tool for a job.
____ C32. Identified safety procedures used with stationary power tools.
____ C33. Identified types of stationary power tools.
____ C34. Identified the correct methods of using and caring for stationary power tools.
____ C35. Identified the correct stationary power tool for a job.
____ C36. Measured, squared, and cut a given piece of stock.
____ C37. Set up and performed a given operation on a power tool.
____ 38. Identified agencies that regulate shop safety.
____ 39. Identified factors which will determine the correct tool for a job.
____ 40. Listed factors that determine proper tool condition.
____ 41. Identified terms and definitions related to concepts in carpentry.
____ C42. Identified materials for a certain job.
____ C43. Identified sizes of standard lumber.
____ C44. Figured board feet on given stock.
____ 45. Identified types of storage for materials.
____ 46. Identified different kinds of hardware used in carpentry.
____ C47. Installed butt hinge on given stock.
____ C48. Installed a door lock on given stock.
____ C49. Identified terms and definitions used in reading blueprints and working drawings.
____ C50. Listed the purpose of a building plan or blueprint.
____ C51. Identified the basic views of a drawing.
____ C52. Identified the lines used on blueprints.
____ C53. Drew the basic views of a given object.
____ C54. Identified terms and definitions used in concrete foundations.
____ C55. Identified terms and definitions used in wood foundations.
____ C56. Identified terms used in footing and foundation forms.
____ C57. Figured the amount of concrete needed for a given area.
____ C58. Set up batter boards to grade.
____ C59. Listed reasons for using steel reinforcement in concrete slabs.
____ C60. Identified sizes of steel reinforcing bars used in concrete slabs.
____ C61. Listed common sizes of wire mesh commonly used in concrete slabs.
____ C62. Listed ingredients concrete is made of.
____ C63. Estimated concrete for a given area.
____ C64. Listed steps to cure concrete properly.

CARPENTRY II

Student: _____

This record is provided as an alternative to the student performance records at the end of each unit. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

Place a check by each objective the student achieved; you may wish to note the date that the student achieved the objective.

C = Core competencies

____ C1. Listed general rules related to work safety in the shop.
____ C2. Listed general rules related to hand tool safety.
____ C3. Listed general rules related to fire safety.
____ C4. Listed general rules for power tool safety.
____ C5. Listed general rules for clothing and personal protective equipment safety.
____ C6. Demonstrated the proper technique in lifting heavy objects.
____ C7. Matched to their correct definitions terms associated with floor and sill framing.
____ C8. Identified floor and sill framing and support members.
____ C9. Listed methods used to fasten sills to the foundation.
____ C10. Defined a girder.
____ C11. Defined a joist.
____ 12. Identified types of bridging.
____ C13. Performed a layout for joists on 16" or 24" centers.
____ 14. Installed bridging, to scale.
____ 15. Built a box sill to scale.
____ 16. Installed floor joists to scale.
____ C17. Matched terms associated with wall and ceiling framing to their correct definitions.
____ C18. Identified framing members used in wall and partition framing.
____ C19. Computed rough opening (R.O.) dimensions for windows and doors.
____ C20. Listed methods used to brace walls.
____ C21. Selected proper size nails most often used in framing.
____ C22. Laid out wall and partition locations on floor.
____ C23. Built corners, Ts, and headers, to scale.
____ C24. Laid out ceiling joists to scale.
____ C25. Matched to their correct definitions terms associated with roof framing.
____ C26. Identified roof styles.
____ C27. Identified roof framing members.
____ C28. Labeled roof framing units.
____ C29. Used a framing square to compute the length of a common rafter.
____ C30. Cut a common rafter.

____ C31. Identified types of trusses.
____ C32. Laid out rafter locations on top plate and ridgeboard on two foot centers.
____ C33. Applied roof sheathing.
____ 34. Framed a gable end with vent opening to scale.
____ 35. Listed types of roofing materials.
____ C36. Applied shingles with 5" exposure.
____ C37. Matched to their correct definitions terms associated with cornices and gable ends.
____ C38. Labeled types of cornice designs.
____ C39. Identified parts of a boxed cornice.
____ C40. Built a horizontal box cornice.
____ 41. Matched terms associated with roofing to their correct definitions.
____ C42. Listed safety rules pertaining to roofing.
____ 43. Matched to their correct definitions terms associated with exterior wall finishes and trim.
____ C44. Named types of wall sheathing.
____ C45. Estimated amounts of siding for given jobs.
____ C46. Listed types of insulation commonly used in residential construction.
____ 47. Listed types of gypsum wallboard.
____ 48. Identified hardware and fasteners used with gypsum wallboard.
____ C49. Estimated materials needed to dry wall a structure (of a given area).
____ C50. Matched to their correct definitions terms associated with wall and ceiling finishes.
____ C51. Listed materials used to finish walls and ceilings.
____ C52. Estimated the number of 4′ x 8′ sheets needed to panel a room.
____ C53. Matched terms associated with interior doors and trim to their correct definitions.
____ 54. Listed the general types of interior door construction.
____ C55. Identified hand of a door.
____ 56. Identified types of interior trim.
____ C57. Estimated material needed to trim a room.
____ 58. Installed interior door frame, hung door, installed lock, and installed trim, to scale.
____ C59. Matched terms associated with cabinet installation and special built-ins to their correct definitions.
____ 60. Listed types of cabinets.
____ C61. Listed the standard sizes of base and top cabinets.
____ 62. Labeled types of cabinet-door installation.
____ 63. Labeled styles of cabinet doors.
____ 64. Labeled types of joints used in cabinet construction.
____ C65. Identified hardware used on cabinets.
____ C66. Listed types of material used on counter tops.
____ C67. Installed a custom-built cabinet.
____ C68. Constructed a lip door.
____ C69. Constructed a cabinet drawer.